

Additional product information

The Baby Pink Booster is a booster with clean transparent boost and very fine Line Driver in bypass position. It sports adjustable and switchable boosts ranging from unity to approximately 8 times or +18 dB, which is the practical limit with the signal levels and supply voltage range used in conventional effects-empirically derived.

Baby Pink Booster was designed to do just the transparent natural clean boost, there is no overdrive or distortion options, to include an overdrive with Clean Boost one would have to compromise one or the other, we recommend Baby Blue OD or Dyna Red Dist for distortion.

The unit don't have even Tone knob because it don't alter your tone, it just boost your signal and don't color your tone at all.

And with it's 180 degree phase bend you can even use it to connect the two channels of your vintage Fender amps (more about this later).

Baby Pink Booster don't have a True By Pass but a very well designed Line Driver (buffered output).

It is good to have one pedal with buffered output or you would loose some signal and high end even with best cables if you drive two cables and few short one between pedals. Later there is more about the Line Drive.

Booster history:

Booster pedals were one of the first effects offered to guitarists. In the fifties they were used to boost output of low wattage amplifiers. In the sixties several were chained to give fuzz effects. In the seventies they were known as pre-amps and were often used as the first pedal in the effects-chain, and were often built into guitars.

Now, some sixty years since their introduction, they are known as clean boosts, and as such have traveled down the effects-chain to a place were their boosting action translates into more dynamics (at footswitch control) as levels can be changed instead of degree of distortion (This is often taken care of elsewhere nowadays). One of the reasons why boosting will be desirable is to adjust lead guitar levels to the same levels as vocals for instrumental parts (no change in tone or distortion is implied).

Boosters of yesterday invariably have gains of 26 to 33dB cramped into one pot making precise difficult - this is nice since the unit can double as a distortion unit, but field-tests show that the precise control of gains from 3dB-9dB (easily repeatable) is highly desirable. And the practical maximum boost is about +18dB.

BABY PINK BOOSTER SPECS

The BABY PINK BOOSTER was initially designed according to the following criteria's:

- 1. A companion to the Baby Blue OD, you can boost the overdriven signal from BB OD for leads, it boosts just the volume and don't alter your tone, distortion characteristics or dynamics. Feedback from many Baby Blue Players gave some helpful clues. It also works wonderful as a stand alone clean boost.
- 2. Exacting control over boost. You don't have to fight to find the "sweet spot".
- 3. Minimum phase shift - since every degree of phase shift will alter tone to a sensitive ear.
- 4. High input impedance for minimum loading (on guitar pickups).
- 5. Low output impedance: for high current drive of long cables without losses of signal.
- 6. Heavy Duty design - for long lasting usage. And small box - don't take much room on your pedalboard.
- 7. A nice color- this ones pink.
- 8. Nice distortion characteristics- since an amplifier can only be as good as it's distortion.

Although the Baby Pink booster is not supposed to distort, it may as well distort in a nice way in an overload situation. The output is also limited to +18dB because with bigger boost you will get transient clipping and that don't sound good. Just try to tap the boosters with +30dB boost, it don't sound nice.

- 9. Low current draw for good economy. It has also AC-adaptor input jack.
- 10. Visible LED - This ones 12milli Candela at 2mA- That's bright.
- 11. Low Noise - definitely. This is made with lowest possible phase shift and with as straight signal path as possible = very low noise.
- 12. Safety - Unit will compile to industrial standards.
- 13. Serviceability - any mechanical part is easily changed by a serviceman.
- 14. Buffered output- In bypass mode the circuit will have a voltage gain of 1, excellent bandwidth with very low deviation, low distortion. Overload will give rise to low order distortion. This type of circuit is considered the most linear amplifier (true to the original) by many Audiophiles.

LINE DRIVER

(why not always go for True Bypass??):

About the load drive capability: the BBOD and DRD have about the same drive capability as an ordinary guitar, and as any effect, but a few, designed to be driven by

a guitar would be high impedance (voltage driven as opposed to low impedance - current driven) BJT deliberately omitted a conventional output buffer (current driver) from the circuit.

During the late 70's and 80's many effects carried silent FET-switching and input-, output-buffers. This practice is very convenient in as much as loading problems are ridded -e.g. the output of one device could drive up the parallel inputs of up to 30 other units (should this situation ever be desirable!) and cheap interconnecting cables could be employed. In recent years, however, signal degradation in auxiliary circuits has become a matter of great importance, what with complete bypass!

The ultimate system would have one pedal with very well designed buffered output and others with True Bypass. Why?? Read more.

Let's consider an effect system consisting of ten effects with buffered output (like almost all Japanese pedals): If every unit carried an input buffer and an output buffer of the most common kind: the emitter follower, and all effects were connected in series (the most common approach) and these emitter followers are well designed, signal voltage loss will be around 1% per buffer-stage. When all effects are bypassed 19% of signal voltage will be lost. Signal current will however be boosted and a 10K load could be driven, which is impossible with an ordinary guitar without heavy degradation, especially in the treble frequencies. Luckily guitars are seldom required to drive heavier loads than 200K. Things could be worse, signal loss per buffer could easily be 3% resulting in 45% signal voltage loss!

The problems with True Bypass pedals:

Capacitive loading: all cables have a series resistance and a shunt capacitance and is therefore a lowpass filter cutting highs, and measure of how good a cable is is the shunt capacitance per meter, and so cables have colored sound since the dawn of electro-acoustic-sound reproduction. In a total bypass system with ten effects total cable run will affect tone- mainly in the high frequencies resulting in a muffled sound.

A buffered effect (in bypass mode) will restore highs since the low output resistance of the buffer will push cut off frequency upwards. Guitars are of the high output impedance variety and do not excel great current drive (except with active pickups) instead their output model is quiet complex, and they require a high impedance load for minimum losses. Cable shunt capacitance may alter sound severely.

Shunt resistance (total resistance to ground) will also cut highs since a typical guitar pick up is essentially a series inductance. These are the reasons why total bypass would be in want, but shunt capacitance in a total bypass configuration might load the guitar anyway - a good buffer might then be the solution to restoring highs.

Treble loss through loading may however in certain situations be desirable. Bass-players like cables with greater capacitance because you get rid of the high end hiss.

AMPLIFIER PHASE RESPONSE:

Baby Pink Booster has a minimum possible phase shift that is 180 deg. The more amplifying stages and electronics parts there are in a unit the more phase shifts and more noise, more frequency coloration happens.

Some facts about Amplifier Phase Response:

1. Minimum degree of phase shift in an amplifier is 180 deg.
2. 180 deg. is perfect out of phase with input signal.
3. For an amplifier to be in phase with input signal, it would have to have a minimum of 360 deg of phase shift. Any amplifier with a phase shift of N times 360 deg is considered in phase with input signal.
4. Phase shifts lower than 180 deg are lead (ahead of).
5. Phase shifts higher than 180 deg are lag (behind of).
6. Any real electronic component will produce phase shift, either because it is supposed to or by virtue of ghost-components developed in wiring and materials.
7. there will always be phase shift - the question is only how much and at what frequency.
8. If a signal is altered in phase to perfect 180 deg and then recombined with itself zero signal will be left due to perfect phase cancellation (the basis of the humbucking effect).
9. When two pickups on a guitar are combined certain frequencies will be canceled to some degree and others will be strengthened. If one pickup would be movable this effect would be very evident. The mid positions on a Strat sound unique because of this effect.
10. Certain two channel amps have their channels out of phase. Cancellations will occur at certain settings if both channels are fed with the same signal simultaneously. (By using a pedal like BPB and inverting phase to one channel will open new doors).
11. Adding of in the same phase will strengthen amplitude. In conventional feed-

back amplifiers feedback is relied on to be 180 deg, however as frequency rise, phase will bend and at some point be N times 360 deg (according to Nyquist). A special situation will occur since amplification factor will rise to infinity (the basis of any oscillator). Phase shift at ultra high frequencies may therefor cause cut out - or even self destruction - in certain amplifiers. However if phase shift can be held near this point of osc. amplification will be higher than normal at the cost of bandwidth (which is why certain amps sound just wonderful right before they die if it's not controlled). This technique dates back to Triod receiver when the amplification factor of two triods did not suffice and bandwidth was low anyway.

Order yours now, only available from Custom-Sounds and comes with 100% satisfaction guarantee, if you don't like it, send it back (within 7 days). These are all 100% handmade by the designer with expensive components (discrete circuit, no cheap op-amps!!), very expensive to make, but we keep the price down by selling them only from our site.

Testimony:

"It was just as good as I had hoped it would be. As my friend commented when we tested it with the clean channel on the OD-100, "With the booster engaged it's the same sound, just better". It worked especially well at high settings on the clean channel and on the crunch channel of the OD-100 to give them even more ohmppp and crunch. It was almost like having another set of channels on my amp."